

<b>Boralex-Livermore Falls</b>	)	<b>DEPARTMENTAL</b>
<b>Androscoggin County</b>	)	<b>FINDINGS OF FACT AND ORDER</b>
<b>Livermore Falls, Maine</b>	)	<b>PART 70 AIR EMISSION LICENSE</b>
<b>A-555-70-E-M</b>	)	<b>Amendment #3</b>

After review of the Part 70 Minor Change application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

FACILITY	Boralex – Livermore Falls (BLF)
LICENSE NUMBER	A-555-70-A-I
LICENSE TYPE	Initial Part 70 License
NAIC CODES	4911 – Electrical Generation
NATURE OF BUSINESS	Electric Generating Station
FACILITY LOCATION	RR2, Snelling Road, Livermore Falls

**B. Description of Part 70 Minor Change**

BLF has requested a Part 70 Minor Change to change part of Special Condition (24)E from:

“All three ESP fields for Boiler 1 shall be operating (all three powered up, but with one “running” and the other two on standby) during normal plant operating conditions. Data for the following points in the ESP shall be recorded once per shift during operation:

- 1) Primary and secondary voltages on each field
- 2) Primary and secondary current on each field
- 3) Spark rate indicators
- 4) Gas pressure drop
- 5) Inlet and outlet gas temperature

Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, NELP#1 may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall NELP #1 be relieved of its obligation to meet its licensed emission limits.”

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To read:

“BLF shall operate, at a minimum, the number of ESP fields that operated during the most recent demonstration of compliance with its licensed particulate emission limits. Upon written notification to the Department, and in accordance with the Bureau of Air Quality’s Air Emission Compliance Test Protocol, BLF may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall BLF be relieved of its obligation to meet its licensed emission limits.

Data for the following points in the ESP shall be recorded once per shift during operation:

- 1) Primary and secondary voltages on each field
- 2) Primary and secondary current on each field
- 3) Spark rate indicators
- 4) Gas pressure drop
- 5) Inlet and outlet gas temperature”

This change is consistent with other wood boilers licensed by the Department and does not reduce or change any monitoring, reporting or record keeping requirements.

This Part 70 Minor Change also clarifies what types of biomass are allowed to be utilized at the facility: biomass (which includes wood chips, peat moss, and other plant derived fuel).

For clarification purposes, this Part 70 Minor Change also combines Part 70 Minor Modification A-555-70-B-A and Part 70 Minor Change A-555-70-C-M.

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C. Facility Emissions

The following total annual emissions are based on a 12 month rolling total.

**Total Allowable Annual Emissions for the Facility**  
(used to calculate the annual license fee)

<b><u>Pollutant</u></b>	<b><u>Boiler (wood)</u></b>	<b><u>Boiler (spec. oil)</u></b>	<b><u>Generator</u></b>	<b><u>Fire Pump</u></b>	<b><u>Total TPY</u></b>
PM	46.80	0.04	0.11	0.12	<b>47.1</b>
PM <sub>10</sub>	46.80	0.04	0.11	0.12	<b>47.1</b>
SO <sub>2</sub>	62.76	0.39	0.05	0.02	<b>63.2</b>
NO <sub>x</sub>	351.00	0.16	4.08	1.75	<b>357.0</b>
CO	1053.00	0.01	0.88	0.38	<b>1054.3</b>
VOC	37.44	0.01	0.32	0.14	<b>37.9</b>
NH <sub>3</sub>	21.90	--	--	--	<b>21.9</b>
Lead	0.51	--	--	--	<b>0.51</b>

**ORDER**

The Department hereby grants Part 70 Minor Change A-555-70-E-M, subject to the conditions found in Part 70 License A-555-70-A-I and in addition to the following conditions:

**The following shall replace Condition (24)B of Part 70 License A-555-70-A-I:**

(24) Boiler 1

B. Boiler 1 is permitted to fire biomass (which includes wood chips, peat moss, and other plant derived fuel), RWF, CDWD and oil. Emissions from Boiler 1 shall not exceed the following limits:

<b><u>Pollutant</u></b>	<b><u>lb/MMBtu</u></b>	<b><u>Origin and Authority</u></b>
PM	0.02	MEDEP Chapter 140, BPT
PM <sub>10</sub>	0.02	MEDEP Chapter 140, BPT
NO <sub>x</sub>	0.15	MEDEP Chapter 140, BPT
CO	0.45	MEDEP Chapter 140, BPT

NO<sub>x</sub>: The 0.15 lb/MMBtu limit is based on a 24 hour daily block average, via CEM. A 24 hour block average basis shall be defined as midnight to midnight. BLF shall maintain the NO<sub>x</sub> CEM in accordance with Chapter 117. The CEM shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F.  
[MEDEP Chapter 140, BPT]

CO: The 0.45 lb/MMBtu limit is based on a 24 hour block average basis via CEM. BLF shall maintain the CO CEM in accordance with Chapter 117.

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A 24 hour block average basis shall be defined as midnight to midnight. The CEM shall meet the monitoring requirements of 40 CFR Part 60.13 as well as 40 CFR Part 60, Appendices B and F.

During startup and shutdown periods when Boiler #1 steam temperature is below 580 °F, the lb/MMBtu value monitored shall not be included in determining the 24 hour block arithmetic average CO lb/MMBtu emission rate. The maximum amount of time the monitored CO lb/MMBtu emission rate shall not be included in the 24 hour block average emission rate shall not exceed an 8 hour block period. Boiler #1 steam temperature shall be demonstrated by a continuous monitor and recorder (reference Condition 24 (A)).

[MEDEP Chapter 140, BPT]

**The following shall replace Condition (24)C of Part 70 License A-555-70-A-I, amendment A-555-70-B-A and amendment A-555-70-C-M:**

(24) Boiler 1

C. Lb/hr emissions from Boiler 1 shall not exceed the following limits:

<b>Pollutant</b>	<b>lb/hour</b>
PM	11.7
PM <sub>10</sub>	11.7
SO <sub>2</sub> *	10.4
NO <sub>x</sub>	87.9
CO	263.7
VOC	9.4
NH <sub>3</sub>	5.0
Lead	0.127

\*Note: SO<sub>2</sub> lb/hr limit is based on firing no more than 5.62 tons per hour of knots and screenings

PM, SO<sub>2</sub>, VOC, NH<sub>3</sub> and Lead lb/hr limits are on a one (1) hour average and can be demonstrated upon request by the Department by a stack test in accordance with this license.

CO and NO<sub>x</sub> lb/hr limits are based on a 24 hour block average basis and can be demonstrated upon request by the Department by a stack test in accordance with this license. A 24 hour block average basis shall be defined as midnight to midnight.

[MEDEP Chapter 140, BPT]

**The following shall replace Condition (24)E of Part 70 License A-555-70-A-I:**

(24) Boiler 1

- E. Particulate matter (PM, PM<sub>10</sub>) emissions from Boiler 1 shall be controlled by the operation and maintenance of a multiple centrifugal cyclone separator followed by an electrostatic precipitator (ESP).

Data for the following points in the multiple centrifugal cyclone shall be taken once per shift during operation:

- 1) Gas pressure drop
- 2) Inlet and outlet gas temperature

BLF shall operate, at a minimum, the number of ESP fields that operated during the most recent demonstration of compliance with its licensed particulate emission limits. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, BLF may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall BLF be relieved of its obligation to meet its licensed emission limits.

Data for the following points regarding the ESP operation shall be recorded once per shift during operation:

- 1) Primary and secondary voltages on each field
- 2) Primary and secondary current on each field
- 3) Spark rate indicators
- 4) Gas pressure drop
- 5) Inlet and outlet gas temperature

[MEDEP Chapter 140, BPT]

**The following shall replace Condition (24)K of Part 70 License A-555-70-A-I and amendment A-555-70-C-M:**

(24) Boiler #1

- K. BLF shall limit the annual fuel usage and quarterly feed rate (based on purchase records which specify the type and quantity of RWF and CDWD) into Boiler #1 to:

- 1) Up to ten (10%) percent by weight of the annual fuel use may be RWF, which for the purpose of this license shall consist of chipped utility poles, railroad ties, and other similar chemically treated wood products.

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- 2) Up to sixty (60%) percent by weight of the annual fuel use may be CDWD, which for the purpose of this license shall be chipped wood demolition debris which is painted or chemically treated, and wood mixed with roofing and other non wood related demolition products removed such that the amount remaining is determined to be insignificant.

**The following shall replace Conditions (24)O and (24)P of Part 70 License A-555-70-A-I and amendment A-555-70-B-A:**

- (24) Boiler #1
- O. BLF shall limit Boiler #1 hourly feed rate of knots and screenings to 5.62 tons per hour. Compliance is based on recording the tons of knots and screenings mixed into the fuel blend on an hourly basis.
- P. BLF shall burn no more than 10,000 tons of knots and screening in Boiler #1 on a 12 month rolling total (based on purchase/shipping records which quantify the mass of knots and screenings delivered).

**The following shall replace Condition (36) of Part 70 License A-555-70-A-I, amendment A-555-70-B-A and amendment A-555-70-C-M:**

- (36) **Certification by a Responsible Official**
- All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official.
- [MEDEP Chapter 140]

**The following are new conditions to Part 70 License A-555-70-A-I:**

- (39) BLF shall pay the annual air emission license fee within 30 days of **September 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

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(40) This amendment shall expire concurrently with Part 70 License A-555-70-A-I.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application      February 14, 2003

Date of application acceptance      February 18, 2003

Date filed with Board of Environmental Protection \_\_\_\_\_

This Order prepared by Mark E. Roberts, Bureau of Air Quality